

## A new gall-forming Trypetid from South Africa

by

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In an earlier paper\* an attempt was made to correlate the host-plant preferences of certain groups of Trypetidae with their taxonomy. Further, a suggestion was made of a series of genera from *Afreutreta* to *Oedaspis*, the gall-forming habit being, as far as the biology is known, a common characteristic. It has not yet been possible to make a detailed survey of the whole series, and much more biological data is still needed. In addition, much more must also be known of the possibly more basic groups of species in the Tephritine genera *Spathulina*, *Trupanea* and others, and among which gall-making often occurs.

The *Afreutreta*-*Oedaspis* series includes a group of isolated and strongly differentiated genera each with a single species. These are *Platomma* Bez., *Oedoncus* Speis., *Dorycricus* Mro., and *Peratomixis* Mro., as well as the new gall-forming genus *Euthauma* described here. Unfortunately it is not known if the other genera are also gall-forming, but it may reasonably be suspected that they are. The group may be placed somewhat between *Afreutreta* and *Parafreutreta* on the one side and *Tylaspis* and *Oedaspis* on the other. Incidentally, it may be noted that both *Dorycricus* (op. cit. p. 94) and *Peratomixis* (op. cit. p. 236) were incorrectly placed, and should have been included in the suggested *Afreutreta*-*Oedaspis* series on p. 238.

The general characters are:— *Head* flattened or very flat (*Platomma*), eye elongate and oblique, epistome prominent, frons 0.3 to 0.5 width of head, upper orbital bristles one and one white, lower 2 or 3 (2 in *Peratomixis*), postocular row white or yellowish (much thickened in *Dorycricus*). *Thorax*: dorso-central bristles before or close to anterior supra-alars, slightly behind in *Dorycricus*; scutellum more or less flat, or slightly convex above, rather more swollen in *Oedoncus*, 4 bristles, 2 in *Peratomixis*; wing: stigma longer than wide to rather long (length about 4 times width in *Dorycricus*, in *Oedoncus* shorter than wide), third vein setose in *Platomma*, slightly in others (i.e. a few setulae over first posterior cell), or practically bare in *Euthauma*, wing with a banded pattern in *Oedoncus*, black in others, while *Euthauma* has numerous, rounded argents, upper-cross vein at outer end of discal cell, in *Dorycricus* near middle of the cell, in *Oedoncus* almost in line with the lower cross-vein.

\* Munro, H. K., 1947. African Trypetidae (Dipt.), Mem. Ent. Soc. S. Africa, Memoir No. 1.

**EUTHAUMA** n.g.

*Head* somewhat elongate, eye oblique, epistome prominent, frons half width of head, bristles black, strong, hind upper orbital whitish, 2 or 3 lower orbitals (the number unstable) postocular row pale (white or pale yellow), lunule moderate, antennae short, labella moderately long. *Thorax*: pubescence fine, black; bristles normal, dorso-centrals just before anterior supra-alars, 1 mesopleural, no scapulars; scutellum flat or slightly convex, 4 bristles; squamae, upper moderate, lower narrow; wing rather broad, third vein bare, or 2 to 3 setulae at base.

Genotype: *Euthauma ghentianum*, the following new species.

**Euthauma ghentianum** n.sp.

A large, striking species with wide, densely black wings and red body, named in honour of its discoverer, Mr. W. H. Ghent.

Holotype ♂, allotype ♀, 6♂, 1♀ paratypes, Farm Joubertstroom 427 (in the Zoutpansberg, 15 miles to east of Louis Trichardt in the Northern Transvaal), in galls on stems of *Schistostephium heptolobium* Benth. (Compositae), January, 1949, W. H. Ghent.

Specimens fixed in ether keep their original colours fairly well, but lose a certain brightness and some of the tomentose bloom on the dorsum of thorax. Untreated specimens become dull, but are improved by washing in ether.

Length, ♂ 6.0 mm., wing 5.0 mm., ♀ 6.9 mm., wing 5.5 mm. by 2.3 mm. wide. *Head*, length, height, width, 7.2 : 6.9 : 10; owing to the projecting epistome, the obliquely elongate eye and horizontal stripes, the head appears more elongate than it really is, the length being only little more than the greatest height. The longer diameter of the eye is 1.3 times the shorter; the eye in life has a brownish tinge, with, in fairly strong light, green and blue reflections; on the lower portion is a horizontal band of purplish or reddish reflections, more or less evanescent, but in some lights quite across the eye; the lower margin of this bar appears as a fine line on a level with the top of the epistome, and another, less marked line runs from the top of the hind end of the bar to the eye margin at the black antennal spot. The lower parts of the head, below the eye, are pale yellowish with sparse, pale yellow hairs, above, brownish; brown on sides of epistome strong, but variable and there is a black, elongate spot on side of projecting frons. Posteriorly is a brown, horizontal streak on the post-genae; down each tentorial suture is a broad brown stripe, and between, based on the foramen, a pair of upwards and outwardly curved stripes to corner of eyes; comb fine, yellow; *frons*, width at vertex 1.25 length, 0.5 width of head, at antennae 0.4 width of head, flat, bare, brown, blackish brown on either side of a median, slightly silvery dusted stripe, broadly silvery laterally in front, ocellar dot black, bristles black, strong lower

orbitals 2 or 3 (2 in 4 specimens, 3 in 2, and in 3 others, 2 on one side, 3 on the other), upper orbitals 2, the upper brownish, as is also the outer vertical, postverticals yellow, other postoculars white including 2 or 3 postorbitals, between which are some short, black setae, ocellars strong, black; *lunule* moderate, length : width, 7 : 10, orange rufous; *antennae* brown, 0.8 face, joint 3 rounded at end, arista black, pubescent; *face* brown, hollow, epistome strongly projecting about 0.3 length of face, parafacials narrow, slightly silvery-dusted, genae moderate; *proboscis* yellow, labella a little shorter than haustellum, 0.7 length of mouth cavity; palpi as long as labella, moderately wide, flat, brown with black setulae on outer two-thirds, base yellow. *Thorax*: dorsum ochraceous a wide, median, brown stripe, narrower anteriorly, but black across scutellum, the sides of which are ochraceous, slight, dorso-central-brown streaks, and brown laterally, with a black spot above humeri and blackish at notopleura; pleura, sterna, and postscutellum tawny ochraceous; dorsal pubescence sparse, fine, black, a trace of pale before scutellum, dust slight, more marked on paler areas especially in fresh specimens; pleural pubescence black, whitish on pteropleura; bristles strong, black, normal, 1 mesopleural, dorso-centrals just before anterior supra-alars, a few pale yellow hairs on propleura, no scapulars; scutellum: width about 0.6 length, broadly rounded at end, flat or slightly convex posteriorly, 4 bristles, apicals 0.6 basals, and 0.4 length of scutellum apart, postscutellum blackened on upper portion; halteres yellow, knob brownish or reddish; squamae blackish, upper moderate with fringe, lower narrow; *legs* ochraceous to tawny ochraceous, front pair with a more reddish tinge, tibiae and tarsi with an almost greenish yellow tinge, front femora with a row of black bristles below; wing (fig. 1) broad, width about half length, densely black with numerous round

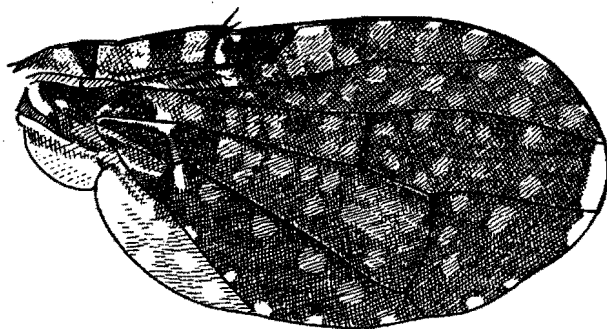


Fig. 1. *Euthauma ghentianum*, wing, diagrammatic. The general blackness is shown reduced in intensity, and the argents somewhat more pronounced; the finer details of shading, which give a mottled effect, are not indicated.

argents, apex and a few marginal spots hyaline, the paler anal region reticulate; second vein with a strong forward bend at middle; third vein bare or two or three setulae at base. *Abdomen*: terga and sterna orange rufous (distinctly "reddish", less so in female), membranes ochraceous, pubescence fine, black, apical bristles present; oviscapae as preabdomen, the tip black, short-conical, 1.1 mm., 0.2 wing, 0.4 preabdomen; male terminalia coloured as preabdomen.

*Puparium*. Elongate elliptical in outline, length 6.0 mm., diameter 2.0 mm.; colour: raw sienna, one specimen cream buff, mouth, anus and spiracles black; posterior spiracles rather prominent; segmentation marked by irregular lines of somewhat punctate spots, less apparent on dorsum. The puparium is found at the bottom of the cavity in the gall.

*Biology and gall*. Galls were found on the stems of the plant *Schistostephium heptolobium* Benth.\* (Compositae) by Mr. Ghent on the farm Joubertstroom in the Zoutpansberg, Northern Transvaal.

The stems of the plant vary from 2 to 4 mm. in diameter. Galls vary in size and shape; on the main stems they are elongate spindle-shaped, 20 to 25 mm. long and 5 to 7 mm. at the greatest diameter and the stem continues to grow beyond the gall. On a side shoot, the gall becomes globose and the shoot ceases to grow.

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\* Determined by National Herbarium, Pretoria.